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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/618,498 | 07/11/2003 | Rich Huang | 252011-1520 | 5392 |
| 47390 | 7590 | 11/10/2005 | EXAMINER | |
| THOMAS, KAYDEN, HOSTEMEYER & RISLEY LLP 100 GALLERIA PARKWAY SUITE 1750 ATLANTA, GA 30339 | | | ADAMS, GREGORY W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3652 | |

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 10/618,498 | | HUANG ET AL. | |
| | Examiner | | Art Unit | |
| | Gregory W. Adams | | 3652 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 7-9, 11, 12, 16-18, 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10, 13-15, 19, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 26, 2005 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 10, 13-15, 19 & 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fosnight (US 5,980,183) in view of Schurch et al. (US 3,698,3326) and Perlov et al. (US 6,283,692). Fosnight discloses a load port transfer device 34, 42 including a load port 50, a transport rail vertical portion beside an overhead conveying system 30, 270 wherein a vertical portion top portion is beside an overhead conveying system and extends from a load port 50, robot 46 which moves along a rail to transfer a wafer carrier between a load port 50 and an overhead conveying system 30, 270, flange

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120 and does not disclose a horizontal rail connected to a vertical rail in an L-shape, roller and timing belt.

Schurch discloses a transport rail vertical portion 2a, a transport rail horizontal portion 2 wherein a vertical portion top portion connects to a horizontal portion, and a robot 4, 5, 7 that moves along vertical and horizontal portions. Schurch further discloses a robot moving mechanism 4, 5, 7 having rollers disposed along a rail and a robot holding mechanism 19, 21 that maintains a carrier 20 horizontal wherein a holding mechanism first end is removably connected to a carrier 20 and holding mechanism second end is movably connected to a moving mechanism 4, 5, 7. Schurch teaches that in the art of conveying over horizontal and vertical rails by movably connecting a holding mechanism to a moving mechanism it is advantageous to maintain a container 20 in vertical position. Cols. 1-2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Fosnight's vertical rail with a rail having a vertical portion connected to a horizontal portion and a robot having rollers, as per the teachings of Schurch, such that during conveying a carrier is maintained in vertical position.

Perlov discloses a timing belt to drive a robot both vertically and horizontally. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a mechanism of Fosnight to include a timing belt, as per the teachings of Perlov, to drive a robot vertically and horizontally.

Response to Amendment

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In response to Applicants Amendment filed August 26, 2005 claims 7-9, 11-12, 14, 16-18 & 20-21 are cancelled. Applicant's amendments to independent claims 1, 13 & 22 and the addition of new claim 23 necessitated a new search and new grounds of rejection.

Response to Arguments

Applicant's arguments filed August 26, 2005 have been fully considered but they are not persuasive. With respect to "path", applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., that a path is a rail) are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). With respects, "path" envisages a direction of travel much less than a mode of travel, i.e. rails, belts and roller carts.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,089,811 to Watanabe et al.

US 3,918,367 to Alimanestianu et al.

US 4,004,654 to Hamy

US 5,069,141 to Ohara et al.

US 6,431,078 to Serrano

US 3,061,119 to Schlepitzka

US 2,612,238 to Angelicola

US 2,609,112 to McKenzie

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US 904,717 to Palmer

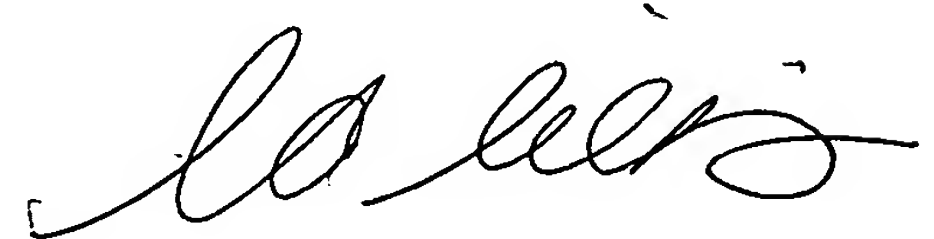
JP 05-286,669 to Mizuno et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory W. Adams whose telephone number is (571) 272-8101. The examiner can normally be reached on M-Th, 8:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GWA



EILEEN D. LILLIS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600